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SIDLEY AUSTIN BROWN & WOOD LLP
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| EXAMINER |
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HOYE, MICHAEL W

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| ART UNIT | PAPER NUMBER |
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2623

| SHORTENED STATUTORY PERIOD OF RESPONSE | MAIL DATE | DELIVERY MODE |
|--|------------|---------------|
| 3 MONTHS | 02/05/2007 | PAPER |

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

| | | | |
|------------------------------|--------------------------------------|-----------------------------------|--|
| Office Action Summary | Application No. 09/665,941 | Applicant(s) JUN ET AL. | |
| | Examiner Michael W. Hoye | Art Unit 2623 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 13 November 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 40-59 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 40-59 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 28 November 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☒ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Arguments

1. Applicants' arguments, filed on November 13, 2006, with respect to amended independent claim 40, as related to the Graves (USPN 5,410,344) reference have been fully considered but they are not persuasive.

Regarding amended independent claim 40, as well as amended independent claims 47 and 58, and claims 41-46, 48-57 and 59, which depend from claims 40, 47 and 58, respectively, the Applicants argue on pages 8-9 of the Remarks section that:

“Graves fails to disclose the claimed hierarchical data structure which, as recited by the amended claim and understood by skilled artisans, has a tree structure that is different from the linear structure of the series of questions in Graves' FIG. 5. *See* the Response of Oct. 5, 2006, at page 7. In accordance with the general understanding of the skilled artisans, the present application also differentiates a series of items (*see, e.g.*, the Table of FIG. 1) and a tree-like hierarchical data structure (*see, e.g.*, FIG. 3). Thus, a reasonable interpretation of the claim should also differentiate the series of questions in Graves' FIG. 5 from the hierarchical data structure which has a tree structure, as required by the claim.”

In response, after further consideration and review of the amended claim language, the Examiner respectfully disagrees with the Applicants because while Fig. 5 of the Graves patent does represent a series or set of questions presented to a user, the data or “features” which the questions refer to are represented in a hierarchical data structure. More specifically, as described in a similar manner in previous Office Actions, the “Overall Feature Rating” as disclosed in Fig. 5 of the Graves patent is a parent preference object in a hierarchical data structure having a tree structure, since it is a single preference value (or parent preference object) characterizing a user

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preference for the combination of the multiple description elements or all child preference objects associated with a first preference object (or parent preference object) in a hierarchy, where the “Overall Feature” is a parent preference object in a hierarchy of preference objects, and where the “Overall Feature” has a respective preference value or “rating” that characterizes user preference for the combination of each child preference object representing content description elements or “feature selections” that are associated with the parent preference object or “Overall Feature” in a hierarchy as shown in Fig. 5. In addition to, this process is performed for multiple programs and program attributes, or “two or more parent preference objects” (see col. 6, lines 54-56 of Graves). Furthermore, as shown in Fig. 6, the “Overall Feature” as described above, is represented by a multimedia “program” or program name such as “Jurassic Park”, where Figure 6 also further discloses the claimed “...including two or more parent preference objects” as met by each of the features listed and the claimed “assigning a respective preference value to each of the two or more parent preference objects to characterize user preference for the combination of the content description elements...” is met by the preference values shown to the right of each feature in Fig. 6.

Also, as a matter of clarification regarding the Applicants remarks made above, the Examiner respectfully notes that the method of gathering the viewer’s preferences regarding programs and program attributes, i.e. “the series of questions in Graves’ Fig. 5, is not what the Examiner is referring to with regards to the claimed “hierarchical data structure”. In actuality, the Examiner is referring to the actual data that is gathered from the questions and the hierarchical data structure that is represented by the data gathered from the ratings questions

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shown in Fig. 5. The Applicants appear to be using a similar method of using a series of questions to gather viewer preference information as shown in Fig. 4.

The Applicants also argue on the bottom of page 8 that, “Graves also fails to disclose (or even suggest) combining the lists of its FIGS. 5 and 6 into the claimed hierarchical data structure. Neither does Graves disclose any other data structure that corresponds to the claimed hierarchical data structure.”

In response, the Examiner respectfully disagrees because Figs. 5 and 6 are representative of a first mode and a second mode, respectively, where the viewer input of preferences is used from any of the different modes in order to evaluate and determine personal preferences regarding programs and program attributes or features (see col. 6, lines 53-59). In other words, Fig. 5 is representative of a screen illustrating a typical set of questions in one mode, where, as stated above, the “Overall Feature” is a parent preference object and all of the remaining feature selections are child preference objects since the “Overall Feature” rating encompasses all of the child preference objects or remaining features, and Fig. 6 is representative of a screen illustrating a set of questions in another mode, where the viewer ranks or rates the listed programs or features, which is similar to an “Overall Feature” rating as described above for Fig. 5.

The Examiner respectfully suggests that the Applicants more specifically claim the “single item” item identifiers along with several combinations of the “multiple item” item identifiers as shown in Figs. 3 and 4, which would overcome the all inclusive “Overall Feature” rating selection in Fig. 5 of the Graves patent.

Priority

2. Acknowledgment is made of applicant's claim for foreign priority based on an application filed in Korea on 9/22/99. It is noted, however, that applicant has not filed a certified copy of the 41192/1999 application as required by 35 U.S.C. 119(b).

Claim Rejections - 35 USC § 101

3. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

4. Claim 47 is rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

The preamble of claim 47 recites, "A software product, tangibly embodied in an information carrier, for describing user preferences, the software product comprising instructions to cause data processing apparatus to perform operations". A claim reciting a software product, tangibly embodied in an information carrier or signal is non-statutory subject matter and does not fall within at least one of the four categories of patent eligible subject matter recited in 35 U.S.C. 101 (process, machine, manufacture, or composition of matter). Similarly, computer programs claimed as computer listings per se, i.e., the descriptions or expressions of the programs, are not physical "things." They are neither computer components nor statutory processes, as they are not "acts" being performed. Such claimed computer programs do not define any structural and functional interrelationships between the computer program and other claimed elements of a computer which permit the computer program's functionality to be realized. In contrast, a claimed computer-readable medium encoded with a computer program is a computer element

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which defines structural and functional interrelationships between the computer program and the rest of the computer which permit the computer program's functionality to be realized, and is thus statutory. See Lowry, 32 F.3d at 1583-84, 32 USPQ2d at 1035.

To expedite a complete examination of the instant application, the claims rejected under 35 U.S.C. 101 (non-statutory) above are further rejected as set forth below in anticipation of the Applicants amending the claim(s) to place them within the four statutory categories of invention.

Claim Rejections - 35 USC § 102

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

6. Claims 40-59 are rejected under 35 U.S.C. 102(b) as being anticipated by Graves et al. (USPN 5,410,344), previously cited by the Examiner.

As to claim 40, note the Graves et al. patent which discloses a computer-implemented method for describing user preferences. The claimed providing a hierarchical data structure for describing user preferences related to multimedia content is met by the feature selections as shown in Figures 5 and 6, which describe user "preferences" or "ratings" related to multimedia content. The claimed hierarchical data structure having a tree structure that includes two or more parent preference objects is met by each of the features listed in the left column in Fig. 6, as well as the "overall feature" selection in Fig. 5, where ratings are set for programs or features viewed by the viewer (col. 6, line 53 – col. 7, line 4). The claimed wherein each of the two or more

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parent preference objects is a container for a corresponding plurality of child preference objects in the tree structure of the hierarchical data structure is met by a parent object such as “Overall Feature” as shown in Fig. 5, which may be represented by a program name such as “Jurassic Park”, as shown in Fig. 6, where “two or more parent preference objects” are met by each of the features listed, as previously described above. The “Overall Feature” selection, is a “parent preference object” in the “hierarchical data structure” since it characterizes a user preference for the combination of each child preference object representing content description elements or “feature selections” that are associated with the parent preference object or “Overall Feature” in a hierarchy as shown in Fig. 5. The claimed each child preference object representing at least one content description element describing multimedia content is met by the plurality of feature content description elements describing multimedia content, such as “dialog”, “music”, “suspense level”, “violence level”, “romance level”, etc. as shown in Fig. 5 (also see col. 6, line 53 – col. 7, line 4). The claimed assigning a respective preference value to each of the two or more parent preference objects to characterize user preference for the combination of the content description elements represented by the corresponding plurality of child preference objects is met by the user setting a “rating” level or grade for the “Overall Feature” which is a combination of the plurality of description elements or features associated with the “Overall Feature” as described above, as well as the user setting a preference level or grade for the plurality of features or parent preference objects in Fig. 6 as described above. The claimed generating a user profile that includes the hierarchical data structure, and specifies the respective preference value for each of the two or more parent preference objects is met by the user completing the viewer

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preference data through the feature selections and ratings as shown in Figures 5 and 6 and as described above (see col. 6, line 53 – col. 8, line 4).

As to claim 41, the claimed assigning a first preference value to the first child preference object to characterize user preference for the first content description element alone is met by Fig. 5, where a rating or “first preference value” is set for a first chilled preference object or feature selection, such as “story appeal”, which characterizes user preference for the first content description element.

As to claim 42, the claimed wherein generating the user profile includes specifying the first preference value for the first child preference object is met by setting a “rating” or “grade” as shown in Fig. 5 and as previously described above.

As to claim 43, the claimed wherein generating the user profile includes designating the hierarchical data structure to be used in searching or filtering multimedia content is met by gathering viewer preference data as shown in Figs. 5 and 6 and as described above (see col. 6, line 53 – col. 8, line 4).

As to claim 44, the claimed wherein one or more of the content description elements identify a genre, a director or an actor is met by the Feature selections shown in Fig. 5, which include one or more description elements identifying a genre (i.e. “music” in Fig. 5, also see col. 4, line 64 – col. 5, line 5), a director (see col. 5, lines 21-22 and col. 7, lines 21-26), or an actor (i.e. “Actor #1” or “Actor #5”, also see col. 5, lines 6-9 and col. 7, lines 21-26).

As to claim 45, the claimed assigning a respective preference value to each of the two or more parent preference objects includes assigning the respective preference value based on a

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user's access pattern to multimedia content is met by "grade" or "preference" levels may be set based on whether the user has accessed or viewed a feature or program (see Fig. 6).

As to claim 46, the claimed assigning a respective preference value to each of the two or more parent preference objects includes assigning the respective preference value based on user input is met by the user selecting the "Overall Feature" rating or grade as described above in claim 1, as well as by the user selecting the "Feature" preference or grade as shown in Fig. 6, which lists each parent preference object as described above.

As to claims 47-53, the claims are rejected based on the rejection of claims 40-46, respectively, and the claimed software product...for describing user preferences... is met by col. 4, lines 6-64 and col. 7, line 60 – col. 8, line 37+).

As to claim 54, the claimed storing the hierarchical structure includes generating a user profile that includes the hierarchical data structure and specifies the respective preference value for each of the two or more parent preference objects is met by the rejection of claim 40 as described above and by storing a personal preference file 32a, which includes among other things data on the impact of various attributes of the programs on the viewer, and preferences of the viewer with respect to those attributes, as well as a preference ranking of all the features ever ranked by a viewer (see col. 5, line 46 – col. 6, line 12 and col. 6, line 53 – col. 7, line 20).

As to claim 55, the claimed hierarchical data structure includes the two or more parent preference objects at the same level of hierarchy is met by the rejection of claim 40 as described above where the "Overall Feature" ranking of more than one program or feature are entered by a viewer and stored in the system.

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As to claims 56-57, the claims are rejected based on the rejection of claims 54-55, respectively.

As to claim 58, the claim is rejected based on the rejection of claims 40 and 47.

As to claim 59, the claimed storing the user profile with the assigned preference values is met by storing rankings in the personal preference file 32a as described above in claim 54.

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael W. Hoyer whose telephone number is **571-272-7346**. The examiner can normally be reached on Monday to Friday from 8:30 AM to 5 PM.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Miller, can be reached at **571-272-7353**.

Any response to this action should be mailed to:

Please address mail to be delivered by the United States Postal Service (USPS) as follows:

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Except correspondence for Maintenance Fee payments, Deposit Account Replenishments (see 1.25(c)(4)), and Licensing and Review (see 37 CFR 5.1(c) and 5.2(c)), please address correspondence to be delivered by other delivery services (Federal Express (Fed Ex), UPS, DHL, Laser, Action, Purolater, etc.) as follows:

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Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to customer service whose telephone number is **571-272-2600**.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished

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applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at **866-217-9197** (toll-free).

Michael W. Hoyer
January 30, 2007



JOHN MILLER
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600